

Eco-innovation: Enabling the transition towards a green economy and society

PLASTIC RECYCLING AND ECO-DESIGN

Eco-design as the key to the efficient use of raw materials in EU

Awareness about the negative impacts of plastics has triggered growing interest among the public, policymakers and businesses. Alongside global initiatives and think tanks, EU-funded projects are also taking the lead in implementing the principles of ecodesign. Advances are now unleashing opportunities to take niche ideas into the mainstream, increasing market uptake and creating a virtuous circle for the green economy and common good.

A group of projects have now joined forces to help drive the transition to the green economy and society through eco-innovation. NONTOX, CREATOR, REACT, Circular Flooring and PLAST2bCLEANED are all members of the Plastics Circularity Multiplier. These projects are bringing complementary innovations to reduce the consumption footprint of plastics and double the circular material use rate over the coming decade.

Challenges

- ◆ **Societal:** Climate action, environment, resource efficiency and raw materials; Health, demographic change and wellbeing
- ◆ **Scientific & Technological:** Sorting and pre-treatment techniques; Recycling technologies; Proving the feasibility of an integrated pilot plant; Valorisation of by-products and safe disposal of removed substances
- ◆ **Industrial:** Removing hazardous substances to allow plastics recycling from Waste Electrical and Electronic Equipment (WEEE), End of Life Vehicle (ELV), and Construction and Demolition Waste (C&DW), enabling plastics recyclers for REACH compliance and competitiveness; Creating a cost-effective circular economy of Polyvinyl chloride (PVC) in competition with price optimised virgin PVC; Producing a plasticiser from a PVC circular economy sidestream; Reusing acrylic fibres

Results

New results and services for the European market for recycled plastic

CreaSolv® Process;
EXTRUCLEAN technology;
Complete coverage of the value chain;
Cost reduction compared with competitive processes;
Economies of scale in commercialisation;
New method to manage waste of acrylic fabrics.



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Who benefits?



Large Enterprise and SMEs



Policy makers, Funding Agencies including EU & national digital agencies



Researchers & Academia, Innovation platforms & clusters

Meet the Projects



NONTOX - Increasing recycling rate of plastics waste containing hazardous substance from WEEE, ELV and C&DW.

nontox-project.eu

Grant Agreement No.820895



CREAToR - Removing hazardous, already banned bromine-containing flame-retardants from waste streams using continuous purification technologies: supercritical CO₂ and cost-effective solvent-based processes. creatorproject.eu

Grant Agreement No.820477



PLAST2bCLEANED - Developing a human and environmentally safe recycling process for WEEE plastics in a technically feasible and economically viable manner by closing the loop of polymer, bromine and antimony trioxide.

plast2bcleaned.eu

Grant Agreement No.821087



CIRCULAR FLOORING - Recovery of a PVC compound from post-consumer PVC floor coverings and the separation of legacy plasticisers with the innovative, patented CreaSolv® process in order to create a recycled material for the manufacturing of new PVC floor coverings.

circular-flooring.eu

Grant Agreement No.821366



REACT - Recycling of waste acrylic textiles. Removing harmful chemicals and ensuring the safe utilization and disposal of removed substances. react-project.net

Grant Agreement No.820869

Developing a human and environmental

Join our community to boost the European market for recycled plastic



The HRB - Horizon Result Booster is an initiative funded European Commission, Directorate General for Research and Innovation, Unit J5, Common Service for Horizon 2020 Information and Data.

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